Abstract

Multiblock copolymers, their preparation and use

Multiblock copolymers are described and contain the structural unit of formula I

$$-A-O-R^1-O-CO-(R^2-CO-)_m-X-D-X-(CO-R^2)_m-CO-X- \quad (I),$$

where A is a radical derived from a homo- or copolyoxymethylene,
R^1 is an alkylene radical having at least two carbon atoms, or a cycloalkylene radical,
R^2 is a direct carbon-carbon bond, or an alkylene, cycloalkylene, arylene, or aralkylene radical,
X is selected from -O-, -S-, or -NH-,
D is a divalent radical B which is a radical of a hydroxy-terminated, mercaptan-terminated, or amino-terminated polymer which derives from polyalkylene glycols, from polyvinyl ethers, from polyvinyl ether copolymers with alkenes, from polyvinyl esters, from polyvinyl ester copolymers with alkenes, from polyvinyl alcohols, or from polyvinyl alcohol-alkene copolymers, from polyvinylaromatics, from polyacrylates, from polymethacrylates, from polyacetals which have no, or up to 50 mol% of, oxymethylene units, from polycarbonates, from polyesters, from polyamides, from polyimines, from polyetherester elastomers (PEEs), from polyetheramide elastomers (PEAs), from polyalkadienes which may, where appropriate, have been hydrogenated, from polyurethanes, from polyureas, or from polysiloxanes, or is a hydroxy-terminated, mercaptan-terminated, or amino-terminated triblock copolymer radical -PAO-B-PAO-, where B assumes one of the above meanings and PAO is a polyalkylene oxide radical, and
m is 0 or 1.
The multiblock copolymers may be used to produce moldings.